**NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE:\_\_\_\_\_\_\_\_\_\_\_\_\_\_ PER. \_\_\_\_\_**

**BIO-COM – CHAPTER 15 – DARWIN – TEST – STUDY GUIDE**

1. During his voyage on the *Beagle*, Charles Darwin made many observations in \_\_\_

2. \_\_\_ is the Father of Biology

3. The finches that Charles Darwin found on the Galápagos Islands had different adaptations. One of the adaptations that Darwin observed was the \_\_\_.

4. On the journey home, Charles Darwin began to wonder if the organims in the Galápagos, \_\_\_.

5. \_\_\_ is a well-tested explanation for a broad set of observations in nature>

6. James Hutton’s and Charles Lyell’s work suggests that\_\_.

7. Darwin proposed the \_\_\_\_.

8. The group of islands that influenced Darwin are the \_\_\_\_.

9. The bird’s that Darwin discovered are called \_\_\_\_.

10. \_\_\_\_ is the Father of Geology.

11. Lamarck’s theory of evolution includes the concept that new organs in a species appear as a result of \_\_\_.

12. When lions prey on a herd of antelopes, some antelopes are killed and some escape. Which part of Darwin’s concept of natural selection might be used to describe this situation?

13. According to Darwin’s theory of natural selection, the individuals that tend to survive are those that have \_\_\_.

14. James Hutton’s and Charles Lyell’s work suggests that \_\_\_.

15. In 1859, Charles Darwin published his revolutionary scientific ideas in a work titled \_\_\_.

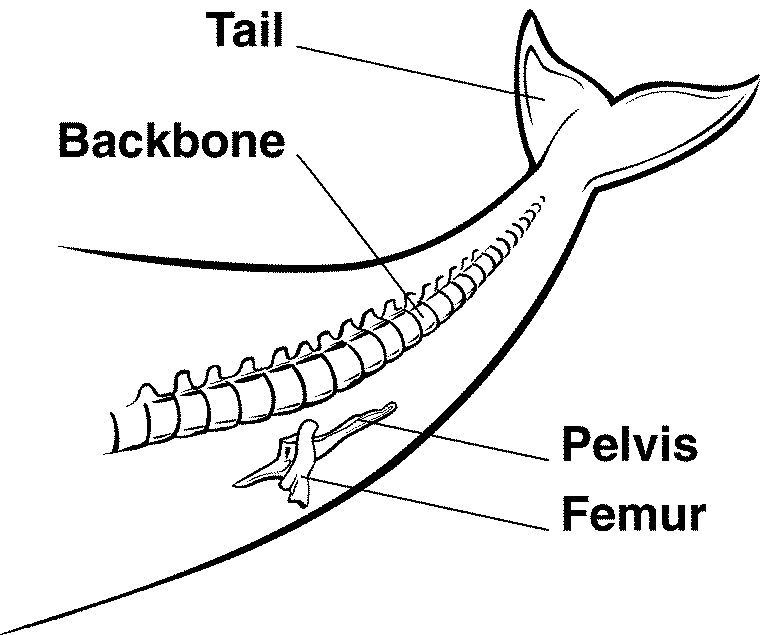
16. Charles Darwin called the ability of an organism to survive and reproduce in its specific environment \_\_\_.

17. According to Darwin’s theory of natural selection, the individuals that tend to survive are those that have \_\_\_.

18. The hypothesis that species change over time by natural selection was proposed by -\_\_.

19. An adaptation is an inherited characteristic that can be \_\_\_.

20. Similar genes are evidence of \_\_\_\_.



**Figure 15–1**

21. In humans, the pelvis and femur, or thigh bone, are involved in walking. In whales,

the pelvis and femur shown in Figure 15–1 are \_\_\_.

22. Any structure and/or behavior that helps an organism survive is a(n) \_\_\_\_\_

23. Structures that are similar in structure, but different in function are referred to as \_\_\_\_.

24. Structures that are similar in function, but different in structure are referred to as \_\_\_\_.

25. All the genes of all members of a particular population make up the population’s \_\_\_.

26. After his voyage on the *Beagle*,Charles Darwin wondered whether similar species from the Galápagos Islands could once have been members of the \_\_\_\_ species.

27. According to \_\_\_\_\_\_\_\_, the sea floor can be pushed up to form mountains by forces within Earth.

28. In Charles Darwin’s time, many people thought that Earth and its living things were formed about \_\_\_\_\_\_\_ years ago.

29. Evidence that the surface of a mountain was once under the sea includes the presence of \_\_\_\_\_\_ on the mountain.

30. \_\_\_\_\_ hypothesized that human populations are kept in check by war, disease, and famine.

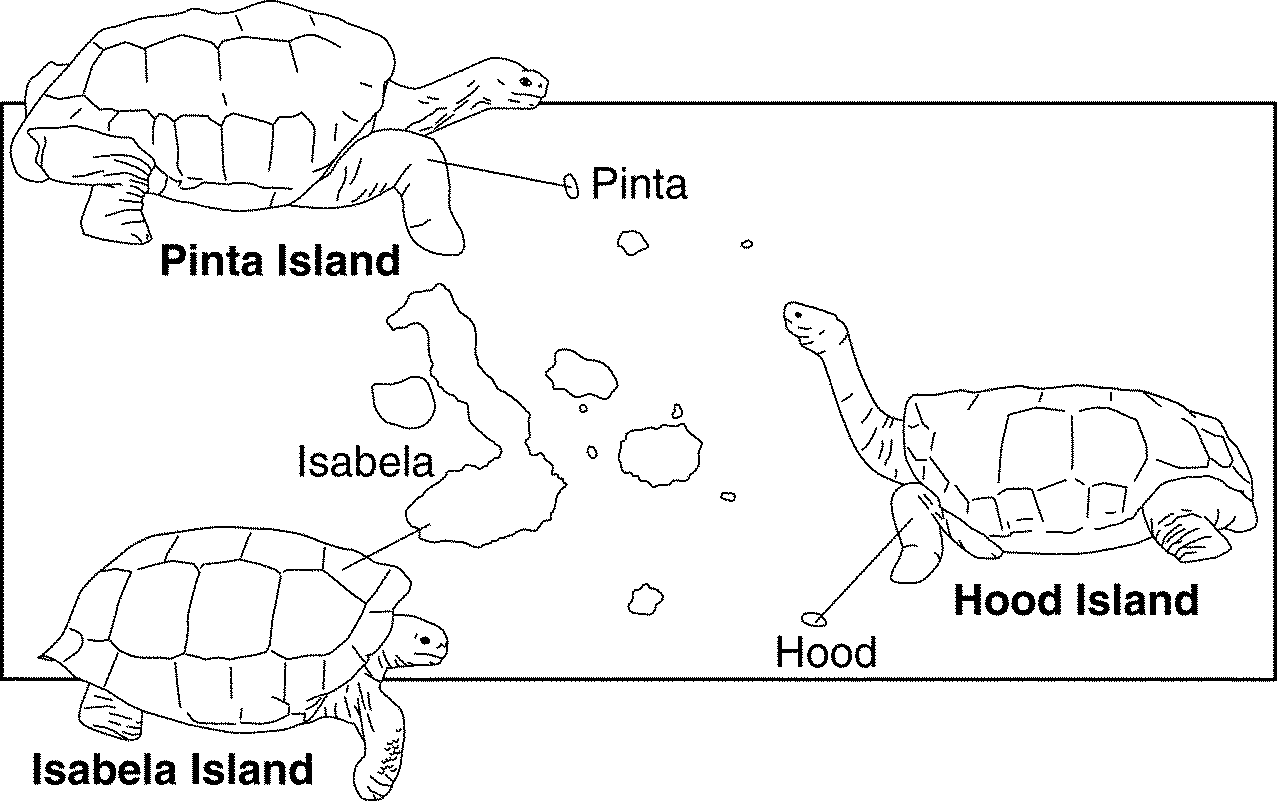
31. In 1858, Alfred Russel Wallace sent Charles Darwin an essay proposing an explanation for \_\_\_\_\_ that was very similar to Darwin’s.

32. In\_\_\_\_\_\_ , human breeders, rather than the environment, select the variations of traits to be passed to offspring.

33. The term \_\_\_\_\_\_ refers to an organism’s ability to survive and reproduce in a specific environment.

34. According to the concept of \_\_\_\_\_\_\_\_, living and extinct species evolved from the same ancestors.

35. According to Charles Darwin, individuals best suited to their environment survive and \_\_\_\_\_ most successfully.

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**Figure 15–3**

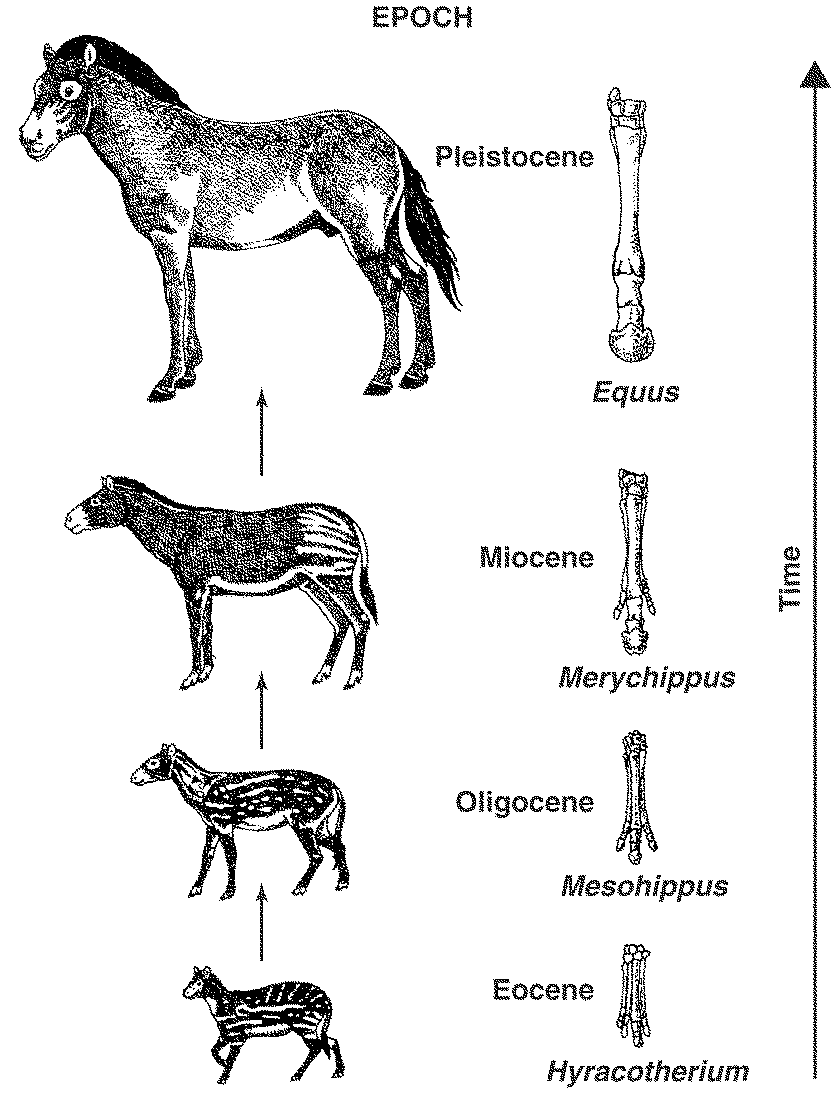
36. What differences are apparent in the bodies of the three tortoise species shown in Figure 15–3?

37. Which of the tortoises shown in Figure 15–3 has the longest neck?

38. Can you tell from Figure 15–3 how closely the three tortoise species resemble the ancestral species?

39. Vegetation on Hood Island is sparse and sometimes hard to reach. How might the vegetation have affected the evolution of the Hood Island tortoise shown in Figure 15–3?

40. Considering the body structure of the tortoises shown in Figure 15–3, which tortoises might survive more successfully on Hood Island?

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**Figure 15-2**

41. According to Figure 15-2, how did overall body size of the horse change during its evolution?

42. In Figure 15-2, how does the shape of the head change as the horse evolves?

43. Scientists have never seen the ancient horses shown in Figure 15-2. What do you think was the main type of evidence scientists used to prepare these diagrams?

44. According to Figure 15-2, how did the number of toes of *Mesohippus* compare with that of *Equus,* the modern horse?

45. Does Figure 15-2 show that all species get much larger as they evolve?